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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,660	12/22/2000	Stephen M. Smith	LAM2P216	9842

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EXAMINER

WINTER, GENTLE E

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 06/26/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/747,660

Applicant(s)

SMITH ET AL.

Examiner

Gentle E. Winter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 8-12 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-12, and 15-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment has been entered.

Response to Arguments

Claim Objections—Moot and Maintained

2. Claims 4-7, 11-14, and 18-19 were objected to under 37 CFR 1.75(c), as being of improper dependent form.

Claims 6, 7, 13, and 14 have been cancelled obviating the objection to claims 6, 7, 13, and 14.

3. As to claims 4, 5, 11, 12, 18, and 19, said claims have been amended to recite that the “height adjustment slot includes, a lower position; and an upper position”. Applicant has indicated that the amendment was made “per the Office’s request.” The last Official action indicated that that the “claims are drawn to a future intended use of the apparatus, and as such fail to further limit the apparatus.”

Unfortunately the correction does not appear to add any additional structure, and as such the objection must be maintained at this time.

4. The claims are drawn to a future intended use of the apparatus, and as such fail to further limit the apparatus. The claims are rejected under their appropriate base claim.

Claim Rejections - 35 USC § 112—Withdrawn

5. Claims 1-19 were rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Applicant has asserted that the claims are sufficiently enabled when read in light of the specification. The argument is accepted. The claims, with the indicated clarifications, appear to be drawn to potential configurations more so than actual configurations, nonetheless applicant's arguments will be accepted at this time in light of applicant's assertions and as such the rejection is withdrawn.

Claim Rejections - 35 USC § 102—Maintained

6. Claims 1-7 were rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 4,654,522 to Gornick et al.

Applicant argued:

Gornick fails to teach an apparatus for preparing a wafer.

And continues:

Furthermore, Gornick fails to teach a wafer backside plate; a wafer backside plate that is configured to slide between an up position and a down position; a gap that is defined between the top surface of the wafer backside plate and the wafer; and that the gap is less when the backside plate is in the up position than when the wafer backside plate is in the down position. In fact Gornick is directed to a different art, Gornick is not equipped to process a wafer."

7. The arguments have been carefully considered, and are not persuasive. The first argument "preparing a wafer" is accorded little patentable weight because the same is a future

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intended use of the apparatus. A patentable apparatus claim must structurally differ from the prior art of record. Insofar as applicant's position is concerned the point that the patent fails to teach an apparatus for preparing a wafer, the point is well taken.

8. As to the argument that Gornick fails to teach a wafer backside plate, seemingly any plate is potentially a wafer backside plate.

9. As to claims 1-5 that are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 5,974,681 to Gonzalez-Martin et al., applicant argued

Gonzalez fails to teach each and every feature of the claimed invention, as defined in amended claim 1. *** Gonzalez [does not teach] a backside plate. [T] he platform does not automatically slide between an up position and a down position.

Since the claim does not require the discussed limitation, and since there is no reason why the reference could not perform in the indicated manner the rejection will be maintained.

10. Claims 1-5, 8-12, and 15-19 were and remain rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 4,788,994 to Shinbara.

Applicant argued that Shinbara fails to disclose each and every feature of the claimed invention, as defined in independent claims 1, 8, and 15, as amended. Shinbara fails to disclose a wafer backside plate. *** Furthermore, the rotary plate does not have a cylindrical edge lip. The rotary plate of Shinbara does not slide between an up position and a down position. Rather, the rotary plate is moved up or down as the shaft is moved up or down. As such, when the rotary plate and the shaft are defined outside the housing, the alleged up position, the shaft and the rotary plate are not spinning. Instead, the chuck pieces have been moved outside the housing for an exchange of wafer. Therefore, the rotary plate and thus the shaft do not spin in the alleged up position.

11. Unfortunately applicant's arguments are not persuasive and the rejection cannot be withdrawn at this time.

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12. It is important to note that the language in the claims “configured to” is not the same as an active recitation. Configuring an object for a particular purpose means nothing more than that the object is suitable for the purpose. The Shinbara reference discloses all the structure of the present claims and is “configured to” perform in the same way, meaning that it *could* perform in the same way. As was indicated in the first action on the merits, the future intended use limitations are accorded weight only to the extent that they differentiate the present invention structurally from the prior art.

13. With respect to Ishihara applicant argues:

Ishihara fails to teach each and every feature of independent claims 1, 8, and 15, as amended. For instance, Ishihara does not teach a chuck having a plurality of grippers, as defined in independent claims 8 and 15. In fact, the mechanical chucks of Ishihara are not shown. Furthermore, the mounting table of Ishihara is not shown to include an aperture or a cylindrical edge lip. In fact in contrast to claim 15, in which the wafer backside plate mirrors the wafer being held, the mounting table of Ishihara is shown to be smaller than the wafer. Additionally, in contrast to the claimed invention *** the wafer backside plate of Ishihara is not disclosed to slide between an up position and a down position.

14. With respect to applicant’s first argument that Ishihara does not teach a chuck having a plurality of grippers, as defined in independent claims 8 and 15; Ishihara does disclose “a plurality of mechanical chucks (not shown) for holding the wafer W.” Applicant’s statement “[i]n fact, the mechanical chucks of Ishihara are not shown.” Is factually correct, but the same is disclosed in the specification. See e.g. column 4, line 52 *et seq.*

15. With respect to the argument: “the mounting table of Ishihara is not shown to include an aperture or a cylindrical edge lip.” Applicant’s observation appears to be correct, inasmuch as

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the same is not identically shown, however the same is inherently present in the manner in which the shaft is affixed to the wafer support. As far as the size of the wafer, there is no reason that a smaller wafer could not be used. Inherency is also shown in the disclosure of a "vacuum chuck" which of necessity includes an aperture; inherent in every aperture is a lip.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 4,654,522 to Gornick et al. Claim 1 is drawn to an apparatus. The apparatus includes a plate and a shaft. The language "configured to include" goes to future potential element(s) and future intended use(s) and as such are give little patentable weight. The claim is drawn to an apparatus, and as such structural limitations are where the most patentable weight will be accorded. Figure 2 of Gornick et al. disclose a plate and a shaft. See specifically element 70 drawn to a wafer and element 60 drawn to a shaft.

2. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 5,974,681 to Gonzalez-Martin et al. Figure 2a discloses each and every element a plate is element 202 and the shaft is element 224. Also disclosed is key (247) formed on shaft (246) mates with keyway (248) formed in platform receptacle (232) (best seen in FIGS. 5a and 5b) to thereby fix shaft (246) and platform (202) for relative rotation.

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3. Claims 1-5, 8-12, and 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 4,788,994 to Shinbara.

4. Claims 1-5 of the instant invention are drawn to an apparatus including a plate and a shaft. The recitation of "configured to" is not construed to substantively limit the claim, but rather is construed as an optional component. Shinbara discloses a "rotary plate (2)" and a "shaft (5)." The shaft has a notch into which pin (16) is inserted. Claims 4 and 5 are drawn to a future intended use.

5. Claims 8-12 of the instant invention are drawn to apparatus including a chuck with a plurality of grippers, a plate, and a shaft. The dependant claims disclose that the shaft has a slot and disclose a pin. Shinbara discloses a "rotary plate (2)" and in paragraph 8 discloses a "shaft (5)." The shaft has a notch into which pin (16) is inserted. Shinbara also discloses "movable chuck member" and "movable chuck pieces (1a)". Wherein the "chuck pieces are the wafer grippers or holders. Claims 11-14 are drawn to a future intended use.

6. Claims 15-19 of the instant invention are drawn to apparatus including a chuck with a plurality of grippers, a plate, and a shaft wherein the shaft is connected to a central portion of the chuck. Shinbara discloses an apparatus for preparing a wafer including a chuck having a plurality of grippers or holders, a plate having a top surface, and a bottom surface wherein the bottom surface includes a cylindrical edge lip that defines a central aperture; a shaft connected to a central portion of the chuck wherein the shaft is received by and engages the central of the

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plate. The dependant claims disclose that the shaft has a slot and disclose a pin. Shinbara discloses a "rotary plate (2)" and in paragraph 8 discloses a "shaft (5)." The shaft has a notch into which pin (16) is inserted. Also note that there is a pin on the upper side of the shaft. Shinbara also discloses "movable chuck member" and "movable chuck pieces (1a)". Wherein the "chuck pieces" are the wafer grippers or holders. Claims 15-19 are drawn to a future intended use.

7. Claim 1-5, 8-12, and 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 6,292,972 to Ishihara et al. The claims of the instant invention are drawn to an apparatus including a chuck with a plurality of holders or grippers a plate having a disk-like top surface wherein the plate includes cylindrical edge lip at its center, and the edge lip has an inner surface that defines a central aperture; a shaft, wherein the shaft is connected to a central portion of the chuck. Ishihara et al. disclose a surface for holding a substrate to be processed substantially horizontally; a member rotatable around a vertical axis; an output shaft having the member connected to a lower portion thereof, for transmitting a rotational force around a vertical axis; a cylinder mechanism that indirectly supports a vertical support for moving the vertical support along said axis of the vertical support together with the horizontal arm; a motor having a rotation drive shaft extending towards the output shaft in the lower portion; and a driven engage member attached to an upper portion of the output shaft and engaged with the drive engage member, for transmitting the rotational driving force of the motor by way of the drive engage member, said driven engage member slidably moving up and down relative to the drive engage member.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gentle E. Winter whose telephone number is (703) 305-3403. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

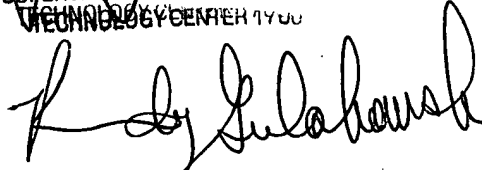
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (703) 308-4333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Gentle E. Winter
Examiner
Art Unit 1746

June 21, 2003

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